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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,790	12/04/2001	Tomoaki Masuda	04558/059001	9906

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EXAMINER

DI GRAZIO, JEANNE A

ART UNIT PAPER NUMBER

2871

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/006,790	Applicant(s) MASUDA ET AL.	
	Examiner Jeanne A. Di Grazio	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 6-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagahama Hiroyuki et al. (JP 2000-082338).

Per claims 1 and 6: Nagahama et al. have a transparent conductive film, transparent touch panel, and liquid crystal display element (ABS, entire patent). In Nagahama, a retarder (Applicant's compensating film) is made from a norbornene-based film (Means for Solving the Problem at Page 3). Nagahama calls the norbornene film a "transparence high polymer film"

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referenced by numeral (11) in the drawings. The norbornene film furthermore consists of a uniaxial-stretching high polymer film (Means for Solving the Problem at Page 3)(Applicant's "a stretched norbornene-based resin film"). Nagahama also has a "transparence conductivity thin film" (Applicant's adhesive layer) that is adhered to the stretched norbornene film (Effect of the Invention at Page 5). The adhesive force of the layers is set to improve adhesive property (Effect of the Invention at Page 5). Nagahama also has a film thickness in the range of 50-200 micrometers (Means for Solving the Problem at Page 3).

Nagahama et al. do not appear to specify an adhesive force of not smaller than 10 N/20 mm.

However, Nagahama et al. do specify and teach a range of adhesive force (15g/15 mm or over (ABS, entire patent) for the purpose of improving adhesion (ABS, entire patent). Specifically, Nagahama et al. instruct that such a laminate of stretched norbornene film and adhesive layer can favorably be interposed between a polarizing plate and liquid crystal panel in a stacked manner (ABS, entire patent). The laminate prevents exfoliation and cracking based on the adhesive force of the layers (Effect of the Invention at Page 5).

Nagahama et al. is evidence that ordinary workers in the field of liquid crystals, adhesives, compensating films, and polarizers would have had the reason, suggestion, and motivation to optimize the adhesive force of a laminate of adhesive layer and stretched norbornene films for the purpose of preventing peeling, cracking, and to improve adhesion.

Please note that in considering the disclosure of a reference it is proper to take into account not only the specific teachings of the reference but also those inferences which one skilled in the art would reasonably be expected to draw therefrom (MPEP 2144.01).

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Nagahama et al. is also evidence that optimization of the adhesive force between a stretched norbornene film and adhesive layer is a results effective variable for preventing exfoliation, cracking, peeling, and improving adhesion.

Optimization of a results effective variable requires only routine skill in the art (MPEP 2144.05 II).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals, adhesives, compensating films, and polarizers at the time the invention was made to optimize the adhesive force of a laminate of an adhesive layer and stretched norbornene film for the purpose of optimizing adhesion and to prevent exfoliation, cracking, peeling, and for a high endurance display device.

Per claims 2-4: Claims 2-4 are product-by-process limitations and are not given patentable weight. Please note that patentability of a claim to a product does not rest merely on a difference in the method by which the product is made. Rather, it is the product itself which must be new and unobvious. Because the process recited adds no structural limitations, no patentable weight has been given to the process recited in claims 2-4 (MPEP 2113).

Per claim 7: Nagahama et al. do not appear to explicitly specify a stretching ratio for the norbornene film.

However, Nagahama et al. teach and suggest that retardation and birefringence depend on stretching (Means for solving the problem at Pages 3 and 4). Changes in the birefringence depend on changes in stretching.

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Nagahama et al. is evidence that ordinary workers in the field of liquid crystals, adhesives, compensating films, and polarizers would have had the reason, suggestion, and motivation to optimize stretching ratio for optimal birefringence and to affect birefringence.

Please note that in considering the disclosure of a reference it is proper to take into account not only the specific teachings of the reference but also those inferences which one skilled in the art would reasonably be expected to draw therefrom (MPEP 2144.01).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals, adhesives, compensating films, and polarizers at the time the invention was made to optimize stretching ratio for optimal birefringence and to affect birefringence.

Per claims 8 and 9: Nagahama et al. have a transparent conductive film, transparent touch panel, and liquid crystal display element (ABS, entire patent). In Nagahama, a retarder (Applicant's compensating film) is made from a norbornene-based film (Means for Solving the Problem at Page 3). Nagahama calls the norbornene film a "transparence high polymer film" referenced by numeral (11) in the drawings. The norbornene film furthermore consists of a uniaxial-stretching high polymer film (Means for Solving the Problem at Page 3)(Applicant's "a stretched norbornene-based resin film"). Nagahama also has a "transparence conductivity thin film" (Applicant's adhesive layer) that is adhered to the stretched norbornene film (Effect of the Invention at Page 5). The adhesive force of the layers is set to improve adhesive property (Effect of the Invention at Page 5). Nagahama also has a film thickness in the range of 50-200 micrometers (Means for Solving the Problem at Page 3). Nagahama et al. also have a "transparence conductivity film" (adhesive layer) adhered to a polarizing plate (Effect of the Invention at Page 5).

Nagahama et al. do not appear to specify an adhesive force of not smaller than 10 N/20 mm.

However, Nagahama et al. do specify and teach a range of adhesive force (15g/15 mm or over (ABS, entire patent) for the purpose of improving adhesion (ABS, entire patent). Specifically, Nagahama et al. instruct that such a laminate of stretched norbornene film and adhesive layer can favorably be interposed between a polarizing plate and liquid crystal panel in a stacked manner (ABS, entire patent). The laminate prevents exfoliation and cracking based on the adhesive force of the layers (Effect of the Invention at Page 5).

Nagahama et al. is evidence that ordinary workers in the field of liquid crystals, adhesives, compensating films, and polarizers would have had the reason, suggestion, and motivation to optimize the adhesive force of a laminate of adhesive layer and stretched norbornene films for the purpose of preventing peeling, cracking, and to improve adhesion.

Please note that in considering the disclosure of a reference it is proper to take into account not only the specific teachings of the reference but also those inferences which one skilled in the art would reasonably be expected to draw therefrom (MPEP 2144.01).

Nagahama et al. is also evidence that optimization of the adhesive force between a stretched norbornene film and adhesive layer is a results effective variable for preventing exfoliation, cracking, peeling, and improving adhesion.

Optimization of a results effective variable requires only routine skill in the art (MPEP 2144.05 II).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals, adhesives, compensating films, and polarizers at the time the invention was made to optimize the

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adhesive force of a laminate of an adhesive layer and stretched norbornene film for the purpose of optimizing adhesion and to prevent exfoliation, cracking, peeling, and for a high endurance display device.

Per claims 10 and 11: The method as recited by Applicant would have been obvious to one of ordinary skill in the art at the time the invention was made in light of the device as disclosed in Nagahama et al.. Furthermore, Nagahama teaches a surface treatment of corona discharge (entire patent).

Per claims 12-14: Claims 12-14 are not entitled to patentable weight because they are structural limitations. It has been held that to be entitled to patentable weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense and not to amount to the mere changing of use of a particular structure.

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagahama Hiroyuki et al. (JP 2000-082338) in view of Hani Tsutomu et al. (JP 05-212828).

Per claim 5: Nagahama et al. do not appear to explicitly specify that the adhesive layer is acrylic.

Hani et al. teach a composite sheet using an acrylic adhesive layer. The composite sheet has a high transparency, durability at high temperature and humidity, superior heat resistance, and physical strength (ABS, entire patent).

Hani et al. is evidence that ordinary workers in the field of liquid crystals, adhesives, compensating films, and polarizers would have had the reason, suggestion, and motivation to use an adhesive acrylic layer for a composite sheet that has a high transparency, durability at high temperature and humidity, superior heat resistance, and physical strength (ABS, entire patent).



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Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals, adhesives, compensating films, and polarizers at the time the invention was made to modify Nagahama et al. in view of Hani et al. to incorporate an acrylic adhesive layer into a laminated structure for high transparency, durability at high temperature and humidity, superior heat resistance, and physical strength (ABS, entire patent).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (703)305-7009. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703)746-8741.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Jeanne Andrea Di Grazio

Robert Kim, SPE

JDG

